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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,122	08/25/2000	Isao Omura	1217-001559	5769

7590

04/09/2003

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EXAMINER

SALVATORE, LYNDIA

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 04/09/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/623,122

Applicant(s)

OMURA ET AL. 

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) 10-23 and 29-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment, Paper No. 12, has been entered as requested. Claims 3,4,7-9, and 24-28 have been canceled and claims 1,2,5, and 6 have been amended. Thus claims 1,2,5, and 6 remain pending and non-elected claims 10-23 and 29-33 are withdrawn from consideration. Applicant's amendments and accompanying remarks have been carefully considered, however, despite this advance the amendments are not found to patently distinguish the claims over the prior art and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1 and 2 stand rejected under 35 USC 102(b) as being anticipated by Palumbo, WO 96/17681

The Applicant has amended claim 1 to include the limitations of claims 3 and 4, claim 2 to include the limitations of claims 24 and 25 and claim 5 to include the limitations of claims 7-9. The Applicant further argues that the invention of Palumbo does not teach or suggest a wet-responsive fiber comprising the claimed resin composition. However, it is the position of the Examiner that Palumbo teaches the resin composition and further discloses that said composition is well suited for the manufacture of fibers.

To reiterate, the published PCT application is directed to a super-absorbent material comprised of anionic and cationic functional groups (Abstract). Palumbo discloses that the

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super-absorbent materials are typically cross-linked hydrophilic polymers (Page 1, lines 6-10). Palumbo teaches that the super-absorbent material is particularly well suited for diapers and may take the form of granules or fibers (Page 11, lines 23-31). The anionic super-absorbent group includes various functional groups such as sulphate, phosphate and carboxyl groups. Palumbo teaches that the super-absorbent anionic group is generally attached to a cross-linked base polymer such as polyacrylic acid or polyvinyl alcohol as well as starch and cellulose based polymers (Page 6, lines 22-37). The cationic super-absorbent groups include cross-linked cellulose such as polysaccharide or may be derived from a water-swelling, water insoluble polymer based on diallylic quaternary ammonium salt monomer, cross-linked with polyfunctional vinyl compound (Page 10, lines 22-37). Palumbo teaches that the ratio of the super-absorbent anionic and cationic material ranges from 3:1 to 1:5 and most preferably from 2:1 to 1:2.

The Examiner acknowledges that Palumbo does not specifically teach a “wet-responsive” fiber, however, it is the position of the Examiner that any fiber is capable of having “wet-responsive” characteristics, especially when used in the manufacture of disposable items such as diapers. Moreover, by the Applicant’s own disclosure it appears that the non-woven fabric comprising said resinous fibers is actually “wet-responsive” or decomposable and not the fiber itself. In the instant case, the Applicant is not claiming a “wet-responsive” or dispersible non-woven, but merely “wet-responsive” fibers *capable* of being manufactured into non-woven fabrics which can be decomposed into fibers in excess water, preferably under the application of external stress such as stirring, and thereby dispersed in an aqueous medium (Applicant’s specification, Page 1, lines 5-10). As such, the Examiner maintains that fibers formed from the

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resin composition of Palumbo would inherently be “wet responsive” and thus reads on the claim limitations set forth by the Applicant.

4. Claims 1 and 2 stand rejected 35 USC 102 (a) as being anticipated by Goldman, WO 98/37149.

For reasons set forth above in section 3, claims 1 and 2 also stand rejected. Recall, the published PCT application to Goldman discloses a polymer composition comprising a cationic and anionic polymer (Abstract). The polymer composition may be formed to into various articles such as fibers, films, foams and sheets (Page 17, Paragraph 4). Goldman teaches that the ratio of anionic and cationic functional groups is .65 parts anionic and .35 parts cationic (Page 17, Paragraph 1). Goldman also discloses that non-acid monomers such as carboxylic acid, sulfonic acid esters, hydroxyl groups, amides, amino quaternary ammonium groups may be included in the composition (Page 15, Paragraph 1). Suitable cationic groups include slightly cross-linked anionic and nonionic base polymers to which cationic functional groups attach. Examples of various base polymers include polyvinyl alcohol and poly(meth)acrylic acid. Goldman further teaches that cationic groups may also comprise polyethylenimine derivatives and polysaccharide based compound such as aminoethyl cellulose and aminoethyl starch (Page 13, Paragraph 2). Typical anionic forming polymers include carboxyl-based groups such as carboxymethyl cellulose (Page 14, Paragraph 6).

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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6. Claims 5 and 6 stands rejected under 35 USC 103(a) as obvious over Palumbo WO 96/17681 or Goldman WO 98/37149 and further in view of Chatterjee et al., US 3,889,678.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ls

April 6, 2003



CHERYL A. JUSKA  
PRIMARY EXAMINER